

REMARKS

Reconsideration and withdrawal of the objections to and rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance.

I. STATUS OF CLAIMS AND FORMAL MATTERS

Claims 1-9, 31 and 32 are pending in this application. Claims 1-9 are amended, and claims 31 and 32 are added, without prejudice. No new matter is added by these amendments.

It is submitted that these claims, as originally presented, were in full compliance with the requirements of 35 U.S.C.-§112. Changes to these claims and the remarks presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes and remarks are made simply for clarification and to round out the scope of protection to which Applicants are entitled. Support for the amended recitations in the claims and for the new claims are found throughout the specification and from the pending claims.

II. OBJECTIONS TO THE SPECIFICATION

The Title was objected to as allegedly being non-descriptive. The objection is traversed. The Title is amended to obviate the objection.

Consequently, reconsideration and withdrawal of the objection to the Title are respectfully requested.

III. 35 U.S.C. §112, SECOND PARAGRAPH, REJECTIONS

Claims 5 and 8 were rejected under 35 U.S.C. §112, second paragraph, for allegedly being indefinite. The rejection is traversed.

Although Applicants disagree with the allegations that the phrase “derivatives thereof” is vague and indefinite, the amendments to the claims render the rejection moot.

Consequently, reconsideration and withdrawal of the Section 112, second paragraph, rejections are respectfully requested.

IV. 35 U.S.C. §102 REJECTIONS

Claims 1-9 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Rombeck et al., *Inorganica Chimica Acta*, 1998, 273:31; claims 1-8 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Beyer et al., *J. Med. Chem.*, 1998, 41:2701; and claim 1 was rejected under 35 U.S.C. §102(b) and (e)(2) as allegedly being anticipated by U.S. Patent No. 5,175,270 to Nilsen et al. The rejections are traversed.

The instant invention is directed to a linker molecule having at least one nucleic acid binding group covalently connected by a spacer group to at least one nanoparticle binding group adapted to bind a nanoparticle thereto. None of the cited documents discloses and enables each and every element of the instant claims.

Rombeck relates to the peptide GHK as a cell stimulating factor, i.e., as a peptide with a biological function, wherein DNA binding using a Pd complex of the peptide is measured. In contrast to the instant invention, however, Rombeck neither discloses nor enables a nanoparticle binding group or a molecule for the attachment of nanoparticles thereto.

Beyer and Nilsen are equally defective. Beyer relates to conjugates of transferrin (a protein) and chlorambucil (a nitrogen mustard), wherein a maleimide group is introduced into the chlorambucil. Beyer fails, however, to disclose and enable nanoparticles such as, for example, metal-containing nanoparticles.

The Nilsen patent, in turn, relates to a class of reagents for assaying nucleic acid sequences having successive layers of polynucleotides of a specific structure, including a double-stranded waist and single-stranded free arms at the molecule ends, formed by hybridization of the arms to adjacent molecule arms. More specifically, the patent relates to matrices A and B formed from complexes of DNA having subunits of partially double-stranded DNA molecules, i.e., reagent matrices in the form of beads (see column 12, line 49, to column 50, line 12). The patent, however, fails to disclose and enable nanoparticles such as, for example, metal-containing nanoparticles, that are bound to a nanoparticle binding group.

Therefore, as none of the three cited documents teaches and enables each and every element of the instantly claimed invention, the Section 102 rejections fail as a matter of law.

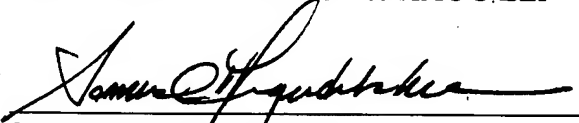
Consequently, reconsideration and withdrawal of the Section 102 rejections are believed to be in order and such actions are respectfully requested.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are patentable, and early and favorable consideration thereof is solicited.

Respectfully submitted,
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